

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 12557510/MKR/KLL	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/AU2005/000037	International filing date (day/month/year) 14 January 2005	Priority date (day/month/year) 16 January 2004	
International Patent Classification (IPC) or national classification and IPC Int. Cl. B01F 7/16 (2006.01) B04B 5/12 (2006.01) F26B 11/14 (2006.01) B02C 13/14 (2006.01) B09B 3/00 (2006.01) B02C 19/06 (2006.01) C02F 1/38 (2006.01)			
Applicant ADVANCED GRINDING TECHNOLOGIES PTY LIMITED et al			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☒ (sent to the applicant and to the International Bureau) a total of 8 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 16 November 2005	Date of completion of this report 13 January 2006
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  MATTHEW FRANCIS Telephone No. (02) 6283 2424

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2005/000037

## Box No. I Basis of the report

1. ☒ V regard to the language, this report is based on:
  - ☒ The international application in the language in which it was filed
  - ☐ A translation of the international application into translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3(a) and 23.1 (b))
    - ☐ publication of the international application (under Rule 12.4(a))
    - ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
  - ☐ the international application as originally filed/furnished
  - ☒ the description:
    - pages 1-30 as originally filed/furnished
    - pages\* received by this Authority on with the letter of
    - pages\* received by this Authority on with the letter of
  - ☒ the claims:
    - pages as originally filed/furnished
    - pages\* as amended (together with any statement) under Article 19
    - pages\* 31-38 received by this Authority on 16 November 2005 with the letter of 16 November 2005
    - pages\* received by this Authority on with the letter of
  - ☒ the drawings:
    - pages 1-6 as originally filed/furnished
    - pages\* received by this Authority on with the letter of
    - pages\* received by this Authority on with the letter of
  - ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to the sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to the sequence listing *(specify)*:

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims 1-56	YES
	Claims	NO
Inventive step (IS)	Claims 1-56	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-56	YES
	Claims	NO

## 2. Citations and explanations (Rule 70.7)

D1: Derwent Abstract Accession No. 98-540702/46  
 D2: DE 3002429  
 D3: AU 19540/00  
 D4: AU 15002/97  
 D5: DE 3916258  
 D6: Patent Abstracts of Japan, JP 09-066243  
 D7: US 4650343  
 D8: US 4799595  
 D9: US 2003/0197080  
 D10: US 2002/0064086  
 D11: DE 20215158  
 D12: EP 1273341  
 D13: EP 1208905  
 D14: US 5538342  
 D15: Patent Abstracts of Japan, JP 2002-035562  
 D16: Patent Abstracts of Japan, JP 2002-059144  
 D17: Patent Abstracts of Japan, JP 2002-282723  
 D18: Patent Abstracts of Japan, JP 2003-093909  
 D19: Derwent Abstract Accession No. 2003-595298/56  
 D20: Derwent Abstract Accession No. 97-200542/18

Novelty and Inventive Step (Claims 1-65)

Documents D1-D20 disclose various examples of processing apparatus, all of which feature a chamber, and inlet, an outlet and a rotor rotated about a vertical axis. The apparatus of documents D1-D20 are used for a wide variety of purposes, such as milling or grinding, mixing, blending, separation, drying and sterilisation. However, none of the cited art discloses or suggests the combination of features presently claimed. In particular, there is no disclosure of a single rotor of substantially circular gross cross section rotatable at 200kph-1200kph about a vertical axis having features thereon that promote a circulatory flow within the chamber. Hence these claims are considered both novel and inventive.

Industrial Applicability (Claims 1-65)

The current claims are directed towards a processing apparatus and therefore have industrial applicability.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. VI Certain documents cited

## 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date ( valid claim) (day/month/year)
WO 2004/067468	12 August 2004	26 January 2004	29 January 2003
US 2004/0218464	4 November 2004	2 May 2003	2 May 2003
WO 2004/041442	21 May 2004	24 October 2003	4 November 2002
DE 10308500	23 September 2004	26 February 2003	26 February 2003
WO 2004/091797	28 October 2004	16 April 2004	17 April 2003

## 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure  
(day/month/year)

Date of written disclosure  
referring to non-written disclosure  
(day/month/year)